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ABSTRACT

Intended for administrators and policymakers as well as teachers, this digest reports on the relationship between class size and writing achievement. The digest first reviews the contradictory findings of class size research, then examines results of meta-analyses of these studies, and subsequent responses. The digest then explores the implications of class size research for writing instruction and what administrators and policymakers can do to reduce class size and teacher workload for composition instruction. (HTH)

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ERIC Digest

Class Size and Writing Instruction

Recognizing the pressure to improve educational quality in the face of smaller school budgets, this digest reports on the relationship between class size and writing achievement. Class size research, to date, has not focused specifically on writing instruction, so the digest will first review class size research in general and then consider its implications for the writing class.

What is the recent history of the class size debate?

The Educational Research Service (Porwell 1978) echoed the opinions of most researchers in 1978 when it declared that findings on the instructional effects of class size were inconclusive. In reviewing the history of the research, it noted the contradictory nature of the findings: while empirical studies in the 1960s and early 1970s indicated a small but significant correlation between larger classes and student achievement, a number of later studies using classes of five or fewer students suggested that student achievement increased in smaller instructional groups. ERS was shocked, then, when their research was followed by a study by Glass and Smith (1978) stating unequivocally that student achievement rises as class size decreases. Much of the work on class size since 1978 has focused on confirming or disproving Glass and Smith's research.

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How does Glass and Smith's work differ from earlier class size research?

As ERS has stated, research has been complicated by the difficulty of isolating the effects of class size from those of other variables such as grade level, academic development, subject matter, instructional methods, and teacher skill and temperament. In an effort to isolate variables more effectively, Glass used a statistical approach that he called meta-analysis, a process of combining and analyzing the summary findings of many empirical studies.

What has meta-analysis revealed about class size?

In their first meta-analysis published in 1978, Glass and Smith combined the quantified effects of 77 earlier studies to create 725 comparisons of student achievement in larger and smaller classes. Their findings included the following: (1) when classes of approximately 18 and 28 pupils were compared, smaller groups showed higher student achievement 69 percent of the time; (2) when classes of approximately 2 and 28 students were compared, smaller classes had higher achievement 98 percent of the time; and (3) when classes of 30 or more students were compared with those of 60 or more, smaller classes had only a 50 percent chance of having higher achievement. Their results were summarized in a graph showing a sharp rise in student achievement as classes dropped below 20 students.

Ten months later, Smith and Glass (1979) produced another meta-analysis on the affective and instructional effects of larger and smaller classes. Developing 371 comparisons from 59 students, they found a nearly 9 to 1 likelihood that smaller classes would show superior outcomes in student, teacher, and instructional effects--including student discipline and self-concept, and teacher morale and professional growth.

What are some major reactions to the meta-analyses?

ERS (ERS, 1978 and 1980) has presented three specific criticisms of Glass and Smith's work: it does not distinguish subtle relationships between variables and thus has led to oversimplified results, it has developed generalizations based on a small number of comparisons, and it has produced often contradictory interpretations of improved student achievement. More generally, ERS claims that Glass and Smith's findings, by falsely implying that their conclusions are the final word on the issue, discourage further research.

While Glass (1980) has held that the ERS criticisms show an incomplete understanding of his research methodology, Hedges and Stock (1983) have recognized a need for further refinement of the statistical analysis used in meta-analysis. Yet their reanalysis of Glass and Smith's data using improved statistical theory essentially confirmed the original findings of the meta-analyses.

What are the implications of class size research for writing instruction?

Despite major conflicts, ERS and Glass and Smith do agree on three significant points. First, both groups recognize that <u>class size affects the educational environment</u>. For example ERS (Porwell 1978) suggests that smaller classes have a positive influence on the behavior of elementary students. Although findings to date do not indicate any direct link between student achievement and affective factors like teacher morale, it would seem that such factors must be considered if schools are to attract and retain high quality teachers. Moreover, classroom environment is a key element both in prewriting discussion and in peer editing of early writing drafts. Suhor (1983) states that when classes are small enough to present prewriting and revision

(through class discussion and peer interaction) as a major part of writing instruction, "students develop a relaxed 'first draft mentality' and a healthy attitude" toward composing and revising.

Second, both Glass and Smith and their critics recognize that the relationship between class size and student achievement is indirect. The number of students per class appears to be more important mainly as it influences teachers' ability to give students individual attention, to communicate expectations, and to meet individual interests and needs. Teachers themselves have frequently suggested the importance of this increased student-teacher communication, stating that smaller classes give them a greater sense of control while permitting freer expression of personal regard for students.

This kind of contact is especially important in writing instruction. The student's understanding of writing as communicating something of value to an audience is linked both to the personal quality of the teacher's written responses and to the teacher's face-to-face conferences with individual students. Kirby and Liner (1981) call for written reactions that are "specific, human, teacher-as-responder comments" about what students write, the goal being "to help writers discover what it is they want to say, and then challenge them to say it as powerfully as possible." Staton (1984) describes the advantages of involving students in essay dialogues--continued written exchanges between students and teachers. The practice convinces students of the value of their own thoughts and shows them that writing is an interactive process. When class size and teacher workload become too large, such student-teacher communication is virtually impossible.

One-to-one writing conferences can be done in class time or through building-level writing centers. The former presupposes both class size small enough to support sequential individual

conferences and teacher management skills adequate to maintaining general order during individual conferences. Somers (1982) describes three focuses--reflecting, expanding, and selecting--for in-class conferences. Building-level writing centers in several Buffalo, New York, high schools are described by Luban (1978). These centers, developed from teachers' experiences, reflect the belief that writing instruction must include intensive one-to-one conferences, which are difficult to carry out in the usual classroom setting.

Recognizing the problem of teacher workload in writing instruction, professional teacher organizations have set guidelines for limiting class size. For example, the National Council of Teachers of English has recommended that secondary-level English teachers have no more than four classes per term and no more than 25 students per class. The council has also recommended that elementary-level teachers, who are necessarily involved in the teaching of writing, teach no more than 25 students.

A number of studies have questioned the basic assumptions underlying such guidelines, asking: Does more writing produce better writers? How helpful is revision? Do teacher comments improve student writing? Results thus far have proven inconclusive, although Arthur Applebee's (1980) comprehensive study of writing in the secondary school includes data suggesting that students must write more often and at greater length. Presently, he states, only 10 percent of English class time is spent on student writing of at least paragraph length.

In order to generate more definitive data, the National Council of Teachers of English established a Task Force to Study Class Size in Secondary Instruction in 1984. The group is summarizing the current state of knowledge on the effects of class size and workload on secondary English instruction,

describing needed research on the effects of altered class size and workload, and suggesting means of funding such studies and appropriate agencies for conducting them.

Finally, research by ERS, Glass and Smith, and others clearly indicates that students will achieve more in classes of 15 or fewer students. For example, ERS (Porwell 1978) reports that small classes can help increase achievement in reading and math in the early primary grades and can increase the achievement of students with lower academic ability. Presumably, lowering class size should increase such students' writing achievement as well, especially in light of the close functional relationships between class size, workload, and writing instruction.

What can administrators and policymakers do?

Administrators and policy makers can consider various ways of dealing with the class size and workload of writing teachers. Changes can be achieved directly, by reducing the student-instructor ratio in writing classes, as numerous districts and some states are doing. But indirect approaches are also important. Teachers can be encouraged, through building- and district-level policy and through inservice, to make use of small group discussion, peer editing, and cooperative learning techniques. Textbooks and instructional materials that include such techniques can be purchased. Funds can be provided for teacher aides, tutoring programs, and school writing centers.

Far from resolving the controversy over class size, research has sharpened the debate, focusing new attention on research methodology and forcing educators to reconsider what determines educational quality. As researchers develop a more substantial body of data on class size and writing, administrators and policymakers might act on the implications of our present knowledge as suggested above. Also, Ernest Boyer (1983), former

Commissioner of Education, offers powerful common sense observations about the demands of writing instruction:

> Today most teachers meet five classes daily, with 25 to 30 students each. If the teacher gives one writing assignment every week to each student, he or she spends at a minimum, more than 20 hours correcting papers.

Ample motivation exists, then, for educational leaders to work rapidly toward a solution of the problems of class size and the teaching of writing.

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